

## MATERIAL INLINE QUALITY MANAGEMENT SYSTEM

### ABSTRACT OF THE DISCLOSURE

Systems and methods are provided through which printed circuit board assemblies  
5 (PCBAs) that share components that have a high rate of failure are identified. The  
components are substantially similar components, such as components that are embodied  
on a reel and/or components that were manufactured by the same manufacturer. The  
identification (ID) of substantially similar components are captured, such as by scanning  
a barcode ID of the substantially similar components, an ID of each printed circuit board  
10 assembly (PCBA) is captured, such as by scanning a barcode ID of each PCBA. Later,  
an association between the ID of each PCBA and the ID of the substantially similar  
components is determined. PCBAs that share components that have a high rate of failure  
are identified from the association. The association is used to identify PCBAs that are at  
risk for sharing common failures.

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